

528, 302

Rec'd PCT/PTO 17 MAR 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

10/528302

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number
WO 2004/029174 A1

(51) International Patent Classification⁷: C09J 201/08, (74) Agent: BASF AKTIENGESELLSCHAFT; 67056 Ludwigshafen (DE).

(21) International Application Number:
PCT/EP2003/010380

(22) International Filing Date:
18 September 2003 (18.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02021629.7 27 September 2002 (27.09.2002) EP
60/415,252 1 October 2002 (01.10.2002) US

(71) Applicant (for all designated States except US): BASF AKTIENGESELLSCHAFT [DE/DE]; 67056 Ludwigshafen (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): WEIDL, Christian, Hubert [DE/DE]; Spelzenstr. 9, 68167 Mannheim (DE). GÖRTH, Felix, Christian [DE/DE]; Carl-Bosch-Strasse 92, 67063 Ludwigshafen (DE). FRENZ, Volker [DE/DE]; Siebenmorgenweg 8, 55246 Mainz-Kostheim (DE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/029174 A1

(54) Title: POLYMERIZED HYDROGEL ADHESIVES WITH HIGH LEVELS OF MONOMER UNITS IN SALT FORM

(57) Abstract: The present invention relates to hydrogel adhesives which are capable of attaching to mammalian skin, exhibit excellent attachment and painless removal properties, and which show excellent stability upon storage at room temperature or even at elevated temperatures and for longer periods of time. The adhesive hydrogel described in the present invention can be used as body adhesive in products for e.g. personal care, medical devices, beauty care and a variety of functional articles to be worn by a human. The hydrogel adhesive of the invention comprises 10-60 wt.% of a cross-linked hydrophilic polymer, 5-80 wt.% of a water-soluble non-ionic humectant, and from about 10-85 wt.% water, wherein the hydrophilic polymer comprises at least 80 mole % of one or more weak-acid monomer units having a pKa above 3, the weak-acid monomer being more than 60 mole % in its salt form, the level of monomer in acid form in said hydrophilic polymer not exceeding 50 mole % of all monomer units and the hydrogel adhesive having a peel strength on PET of 0.3 to 5.0 N/cm and a stability index measured after 14 days SIx14 below 0.50, preferably below 0.20, most preferably below 0.10.